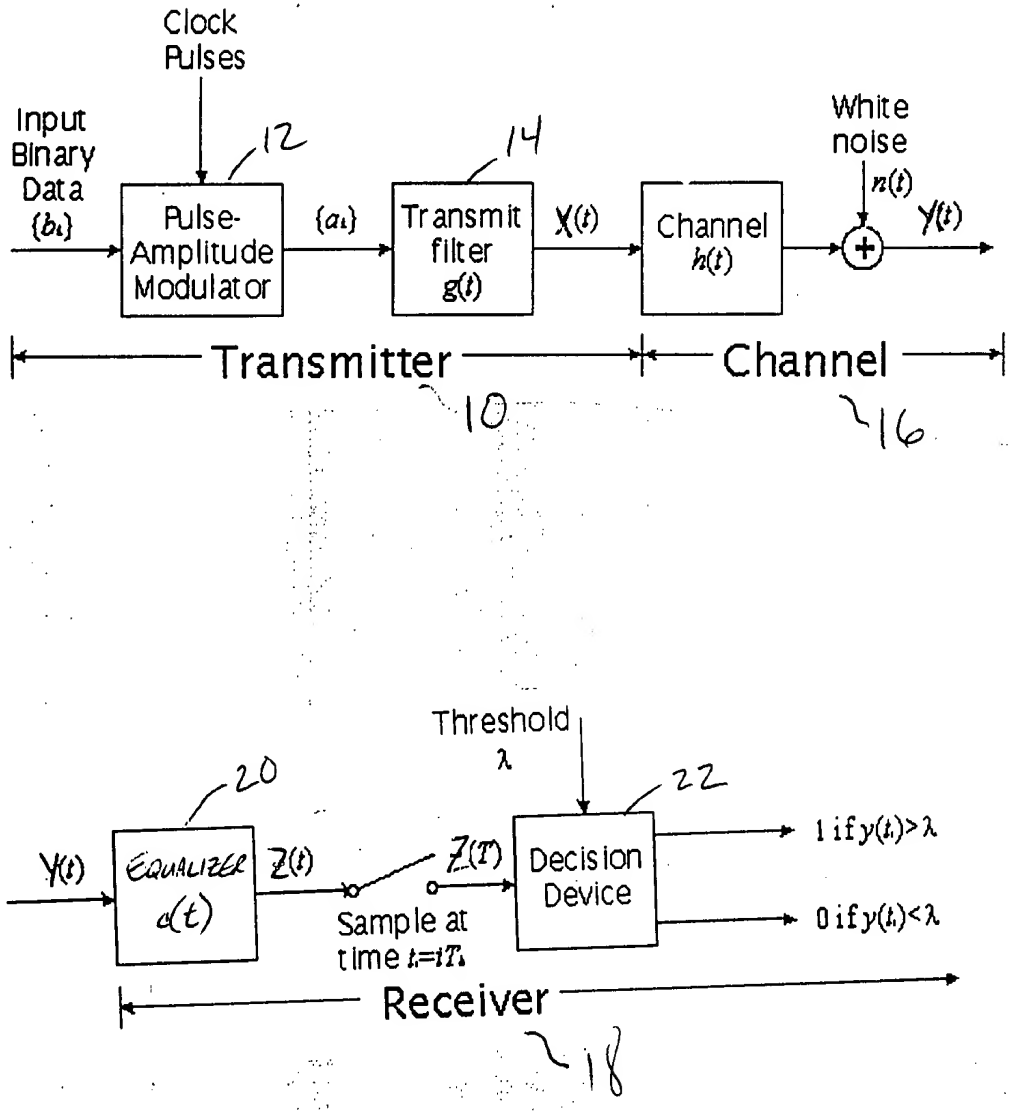

FIG. 1

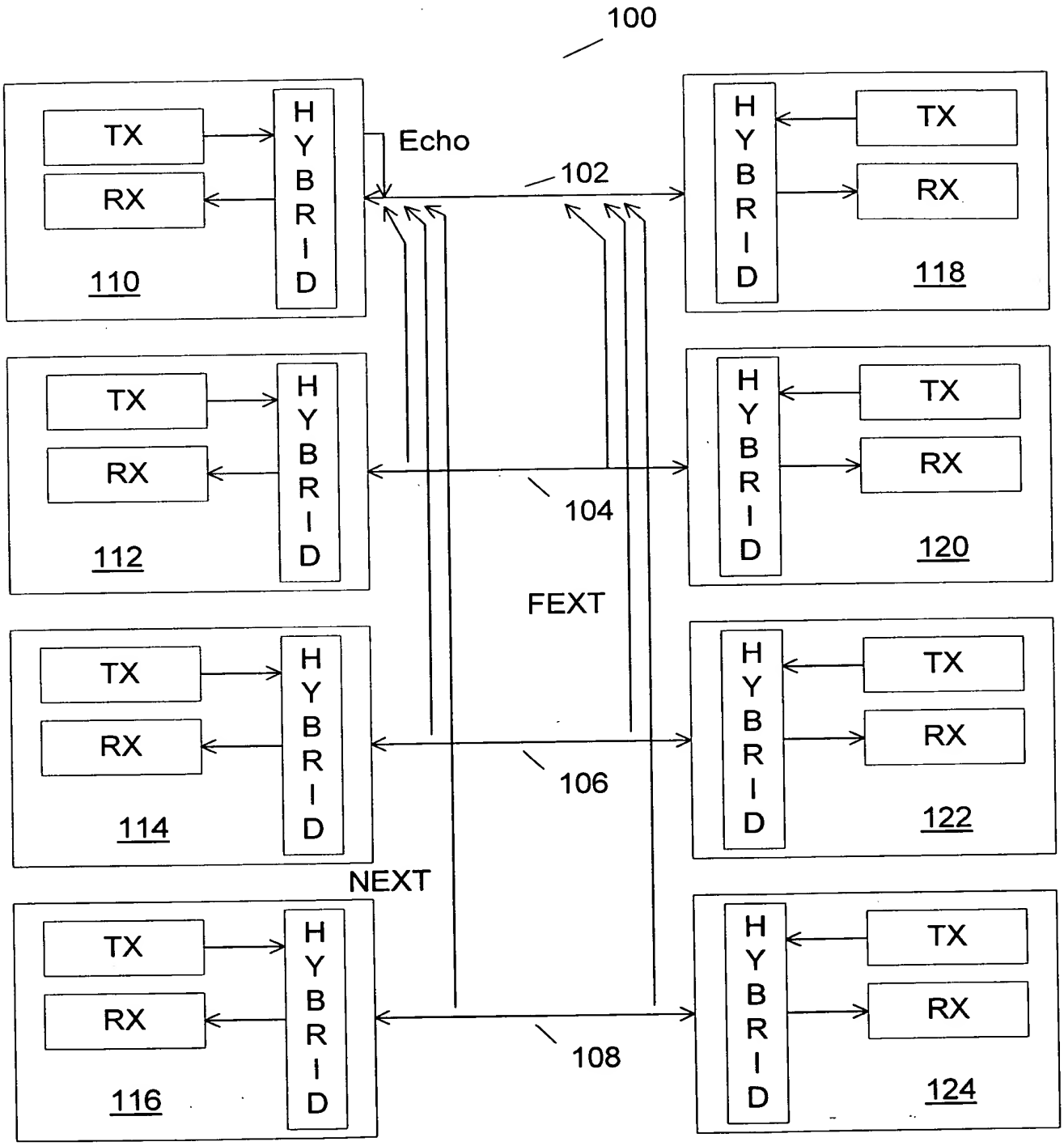
100
TX
RX
HYBRID
110
Echo
102
TX
RX
HYBRID
118
TX
RX
HYBRID
112
104
TX
RX
HYBRID
120
FEXT
TX
RX
HYBRID
114
106
TX
RX
HYBRID
122
NEXT
TX
RX
HYBRID
116
108
TX
RX
HYBRID
124

FIG. 1a

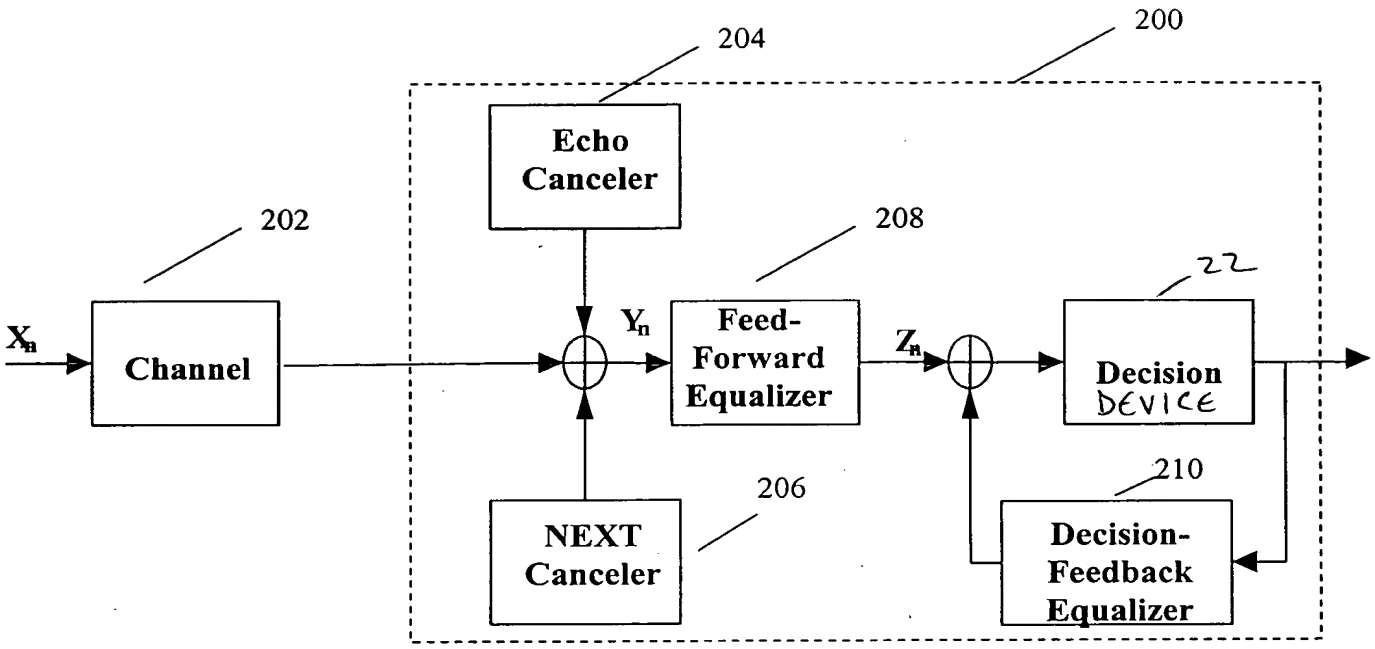

Figure 2 – A Gigabit Ethernet Receiver

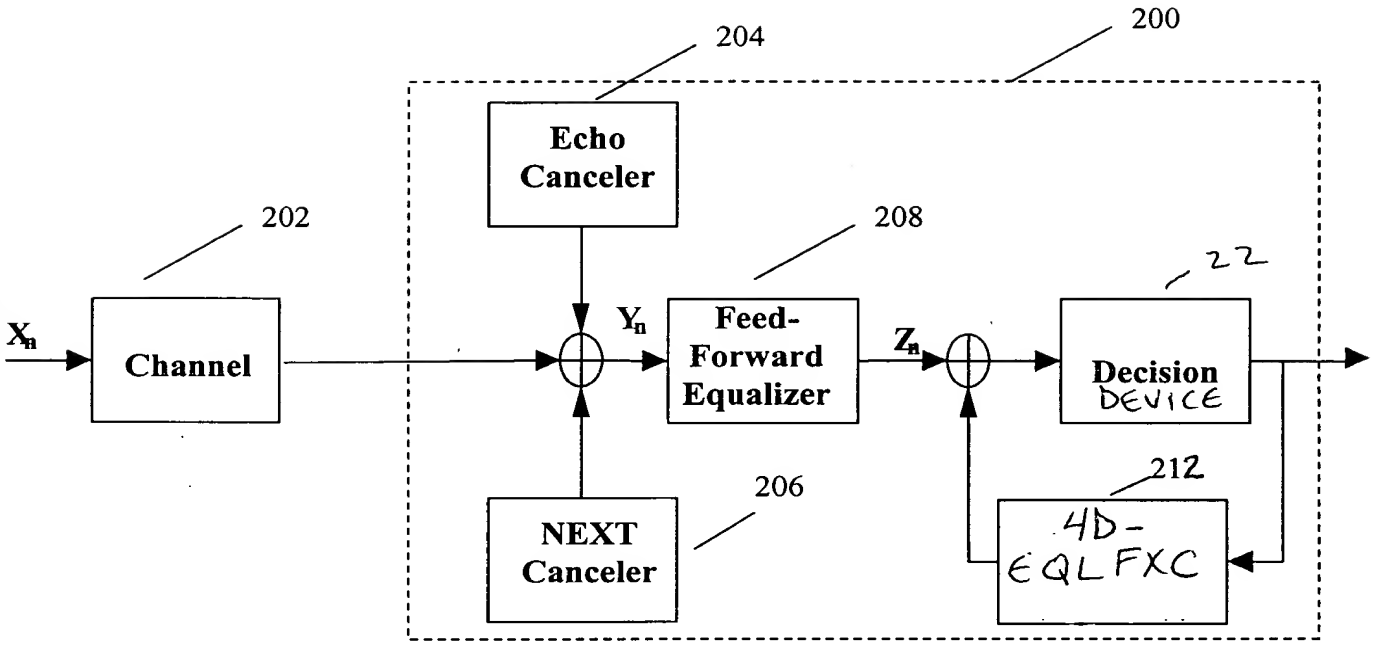
200
204
Echo Canceler
202
208
22
X_n
Channel
Y_n
Feed-Forward Equalizer
Z_n
Decision DEVICE
212
206
NEXT Canceler
4D-EQLFXC

Figure 2a

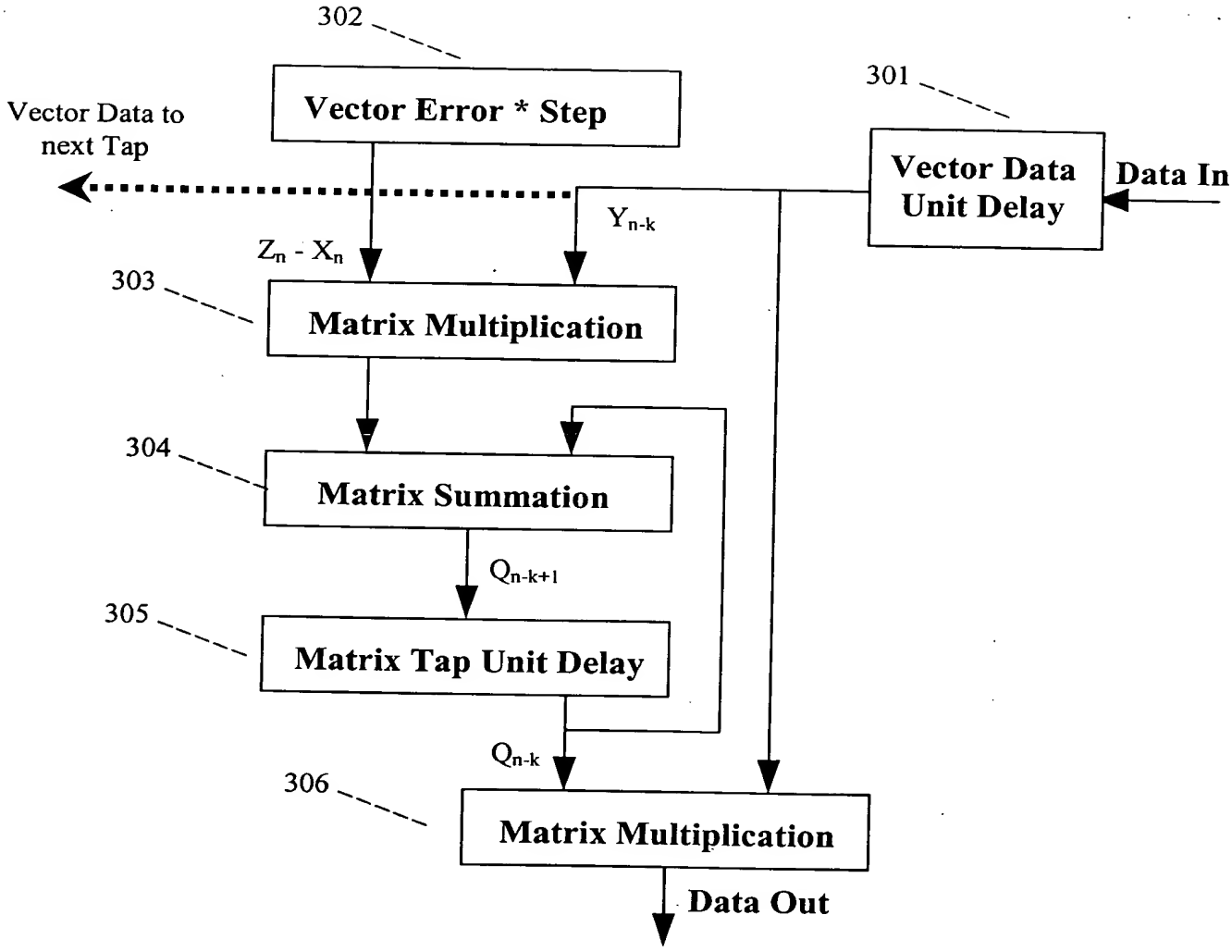

Figure 3 – A single tap of 4D-EQLFXC

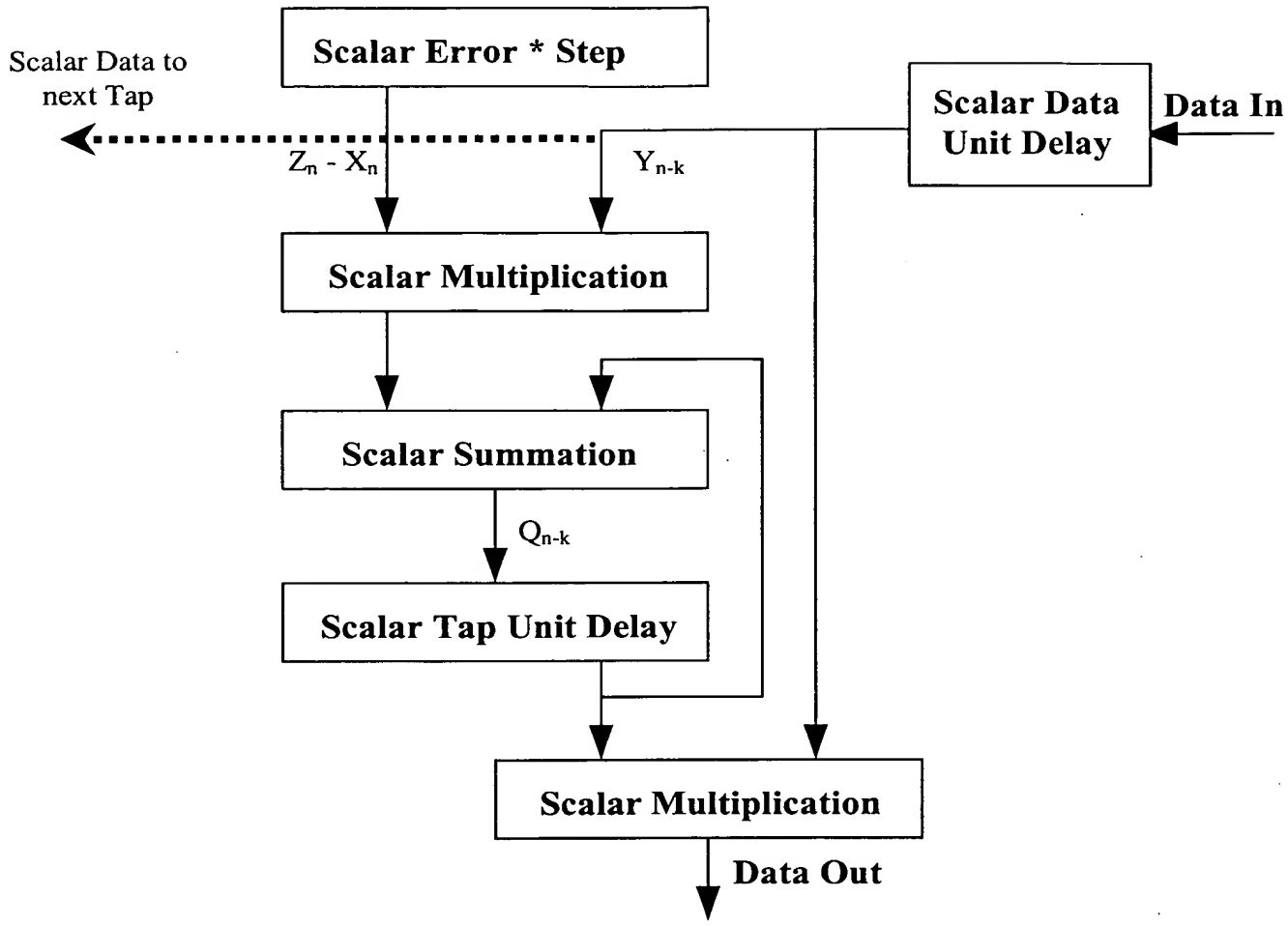

Figure 4 – A single tap of 1D-EQL

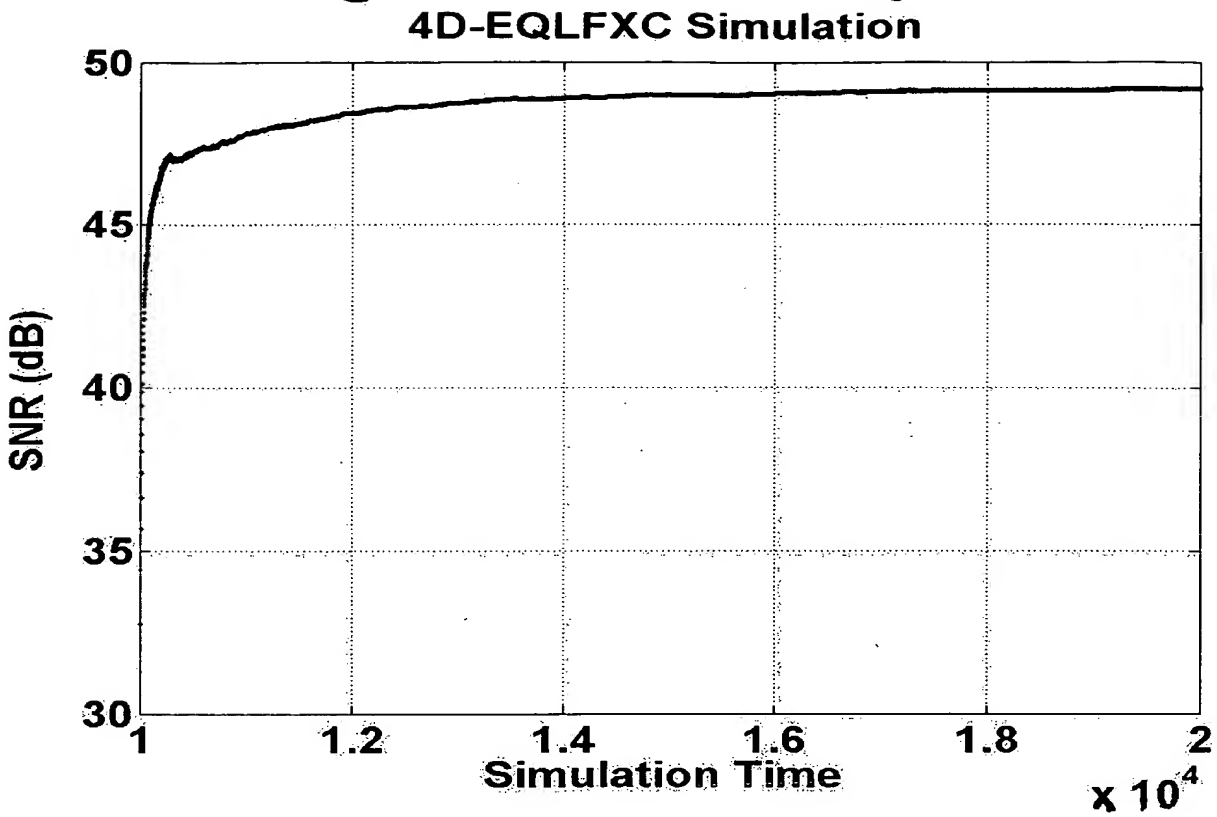

Fig. 5a

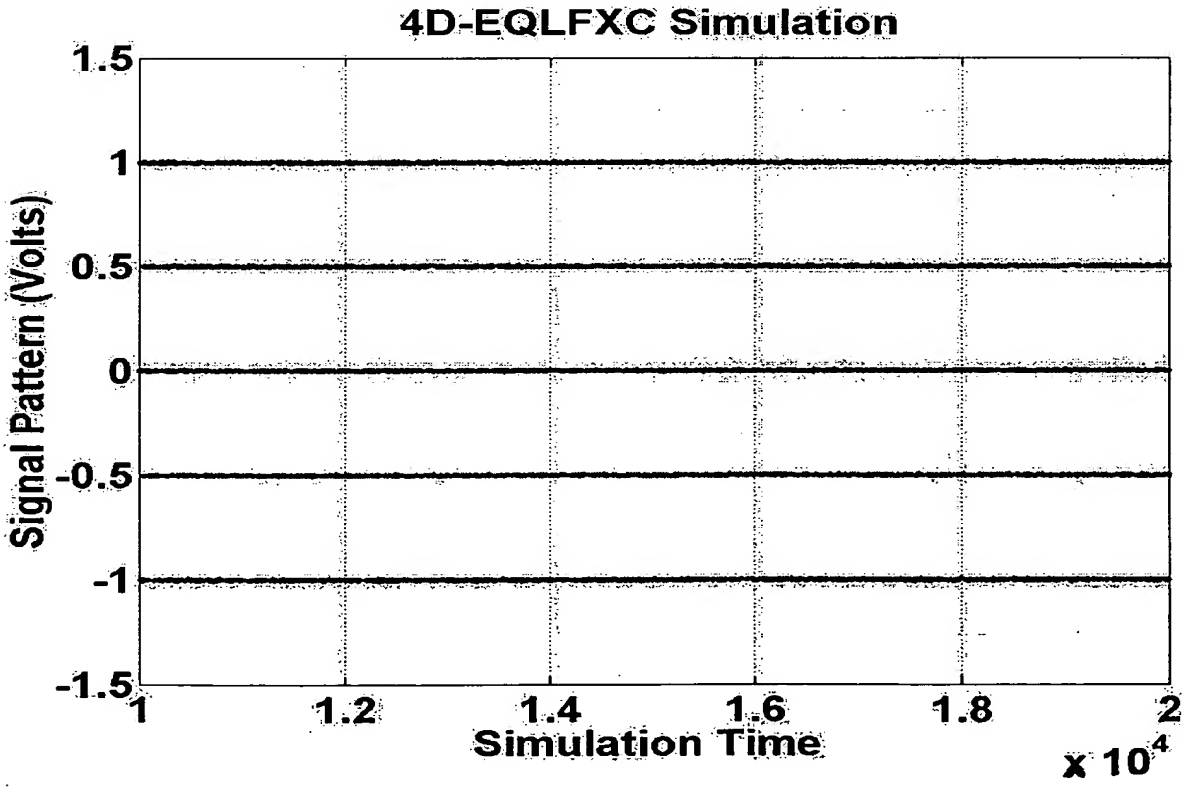

Fig. 5b

4D-EQLFXC simulation
(N=20, $\mu = 0.01$)

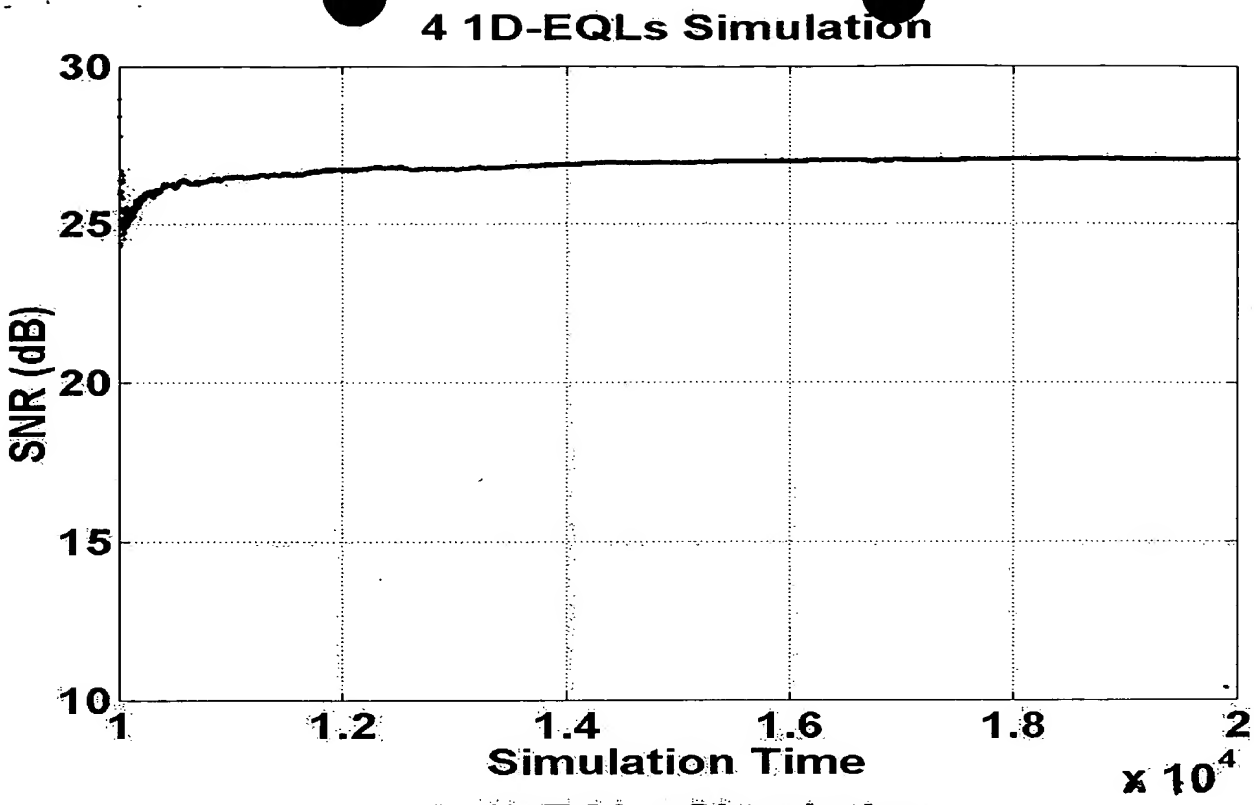

FIG. 6a
PRIOR ART

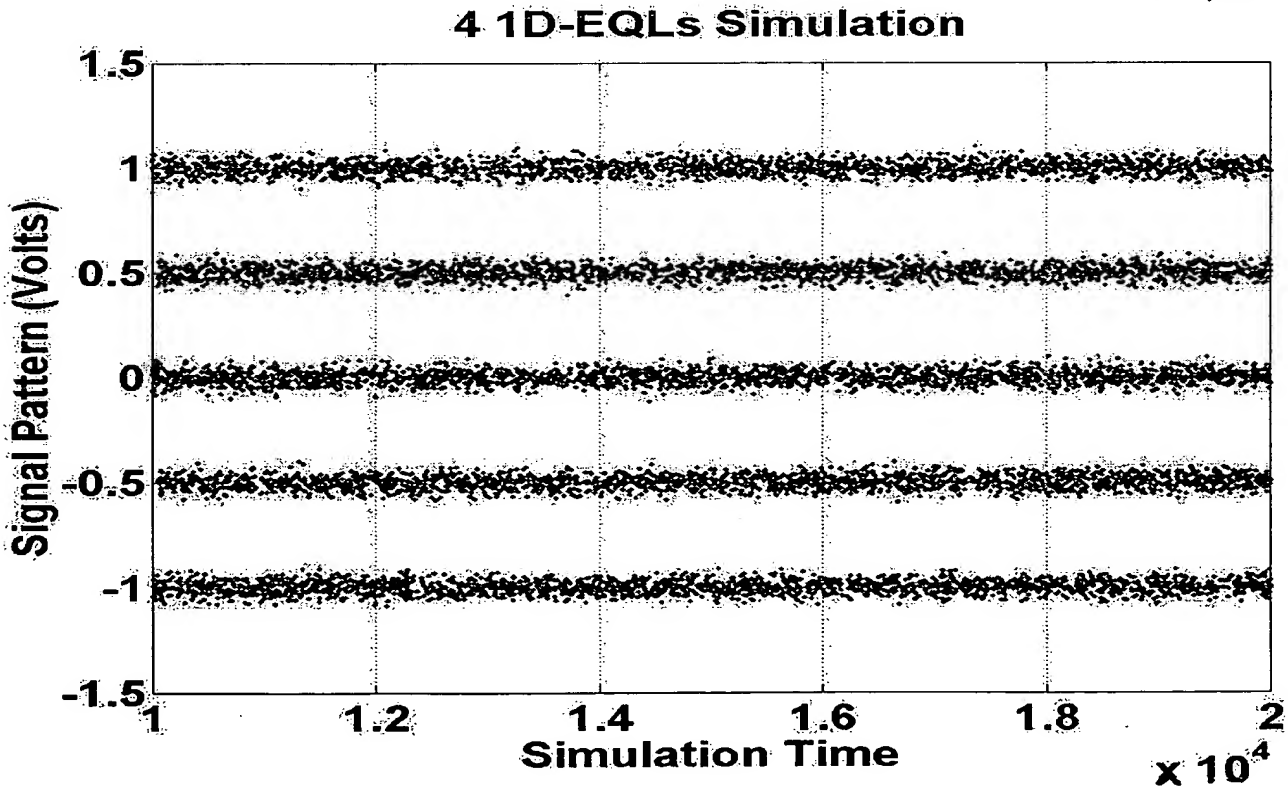

FIG. 6b
PRIOR ART

4 1D-EQLs simulation (N = 50, μ = 0.01)